SURVEILLANCE OF HOSPITAL ACQUIRED INFECTIONS IN NORTH CAROLINA

Proposal for incremental surveillance coordinated by NC DHHS Division of Public Health

-- Central Line-Associated Bloodstream Infection as a pilot reportable condition --

Proposed methodology and estimation of resource needs

I. Key principles for determining surveillance methodology

1. Adopt national standards (e.g., case definitions, minimum data elements) ensuring comparability with other states and with national data.

2. Implement surveillance in a "pilot phase" or incrementally with single outcome measure, Central Line-Associated Bloodstream Infection (CLABSI).

3. Conduct surveillance on a target population at risk: inpatients in Intensive Care Units (ICU).

4. Event data: Collect numerator and denominator data to allow measure of incidence rates and incidence rate ratios of CLABSIs; infections (numerator), and additional data (denominator) allowing stratification by risk, e.g., patient-days (for rate calculation), central line-days (for utilization ratio), ICU type, age group, comorbidity, etc.

5. Validation through systematic auditing (e.g., annually, bi-annually) to ensure compliance and data quality built-in as part of surveillance method.

II. Surveillance data sources: Intensive Care Units (ICUs)

Adult ICUs: 1941 beds in 100 hospitals. Bed breakdown: 518 Cardiac ICU; 1057 General ICU; 116 Neurosurgery ICU; 250 Surgery ICU.

Peds/Neonatal ICUs: 803 beds in 29 hospitals. Bed breakdown: 700 beds Neonatal ICU; 103 beds Pediatric ICU.

Trauma Centers (beds included above):
- 6 Trauma Centers Level 1
- 3 Trauma Centers Level 2
- 3 Trauma Centers Level 3

Total of 100 hospitals. (Trauma centers and neonatal and pediatric ICUs are located among the 100 hospitals with adult ICUs.)

**(Adapted from NC DPH - DRAFT 12/16/2008)*